

GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: June 21, 2000, 19:59:44 ; Search time 52.6 Seconds  
(without alignments)  
349.995 Million cell updates/sec

Title: US-08-702-525-13  
Perfect score: 1624  
Sequence: 1 MYIKTCATCTMGLAIIIFV.....ETINKLEPOIASAKPNAE 314  
Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 168808 seqs, 58629743 residues  
Total number of hits satisfying chosen parameters: 168808

Minimum DB seq length: 0  
Maximum DB seq length: 1000000

Post-processing: Minimum Match 0%  
Listing first 45 summaries

Database : PIR\_63:.\*  
1: pir1.\*  
2: pir2.\*  
3: pir3.\*  
4: pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Match	Length	DB	ID	Description
1	1576	97.0	309	2	I49522	gene B7-2 protein - mouse
2	724.5	44.6	329	1	A48754	B7-2 antigen - hum
3	694.5	42.8	330	2	I45691	CD86 precursor - r
4	331	14.2	309	2	I49503	B-lymphocyte activ
5	223	13.7	321	2	I54766	B7-1 - rat
6	197	12.1	299	2	I45690	CD80 precursor - r
7	161.5	9.9	288	2	A45803	B-cell-restricted
8	144.5	8.9	289	2	G00031	B7 protein - red-c
9	129.5	8.0	478	2	I53960	PRR2 alpha - human
10	129.5	8.0	526	2	A37821	butyrophilin - bov
11	129.5	8.0	538	2	I68093	PRR2 delta - human
12	129.5	8.0	569	2	A45462	T cell activation
13	127	7.8	526	2	S70587	butyrophilin precu
14	116	7.1	274	2	A47639	Ox-2 membrane glyco
15	114.5	7.1	335	2	S58892	signaling lymphocy
16	114.5	7.1	1880	2	T18531	tractin - medica
17	114	7.0	487	2	S65133	butyrophilin - mou
18	113.5	7.0	391	2	T09058	butyrophilin homol
19	109.5	6.7	960	1	JN0677	receptor protein-t
20	108.5	6.7	1011	2	T13669	neurexophilin - fr
21	107	6.6	234	2	S01320	poliovirus recepto
22	106.5	6.6	518	2	JC4024	poliovirus chain pre
23	106.5	6.6	761	1	IJHUNG	neural cell adhesi
24	106.5	6.6	974	1	A49714	protein-tyrosine k
25	105.5	6.5	219	2	S52028	Ig kappa chain - m
26	105.5	6.5	978	2	S16385	CSF-1 receptor - r
27	105.5	6.5	978	2	I60321	CSF-1 receptor - b
28	105	6.5	647	2	B41288	vascular cell adhe
29	104.5	6.4	806	2	A35963	protein-tyrosine k
30	103.5	6.4	219	2	PC4203	Ig kappa chain (mo

## ALIGNMENTS

### RESULT 1

I49522  
gene B7-2 protein - mouse  
C:Species: Mus musculus (house mouse)  
C:Date: 02-Jul-1996 #sequence\_revision 02-Jul-1996 #text\_change 23-Jul-1999  
C:Accession: I49522  
R:Freeman, G.J.; Borriello, F.; Hodes, R.J.; Reiser, H.; Gribben, J.G.; Ng, J.W.; Kim, J. Exp. Med. 178, 2185-2192, 1993  
A:title: Murine B7-2, an alternative CTLA4 counter-receptor that costimulates T cell  
A:Reference number: I49522; MUID:94065585  
A:Accession: I49522  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: mRNA  
A:Residues: 1-309 <RES>  
A:Cross-references: GB:I25606; NID:g432478; PIDN:AAA79770.1; PID:g432479  
C:Genetics:  
A:Gene: B7-2  
C:Superfamily: B7-2 antigen

Query Match 97.0%; Score 1576; DB 2; Length 309;  
Best Local Similarity 100.0%; Pred. No. 6e-112;  
Matches 305; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 10 CTMGLAILFVTVLLISDAVSVEQAYNGTAYLPCPFTKRAQNISLSLVVFWQDQKLV 69  
Db 5 CTMGLAILFVTVLLISDAVSVEQAYNGTAYLPCPFTKRAQNISLSLVVFWQDQKLV 64  
QY 70 LYEHYLGTEKLDVSNAYLGRTSFDRNNWTLRLHNVQIKDMGSYDCFTQKKPPTGSIILQ 129  
Db 65 LYEHYLGTEKLDVSNAYLGRTSFDRNNWTLRLHNVQIKDMGSYDCFTQKKPPTGSIILQ 124  
QY 130 QTLELTVIANFSEPEIKLAQNTVGTSGINLTCTSKOGHPKPKMYFLITNSTNEYGDM 189  
Db 125 QTLELTVIANFSEPEIKLAQNTVGTSGINLTCTSKOGHPKPKMYFLITNSTNEYGDM 184  
QY 190 QISQDNVTELFSSNSLSLSPDGQVWMTVVCVLETSMKISSKPLNFTQEPSPQYWK 249  
Db 185 QISQDNVTELFSSNSLSLSPDGQVWMTVVCVLETSMKISSKPLNFTQEPSPQYWK 244  
QY 250 EITASVTVALLLVMLLIIVCHKKPNQPSNTASKLERDSNADRETINKLEPQIASA 309  
Db 245 EITASVTVALLLVMLLIIVCHKKPNQPSNTASKLERDSNADRETINKLEPQIASA 304  
QY 310 KPAE 314  
Db 305 KPAE 309

### RESULT 2

A48754  
B7-2 antigen - human  
N:Alternate names: H70 glycoprotein; CD86 antigen; CTLA-4 counter-receptor